

In the claims:

Please amend the claims as follows:

1. (Currently Amended) A method for quantitatively assessing a peripheral vascular function in a limb of a patient, the method comprising:

- (a) measuring a peripheral pulse volume per length PV in the limb of the patient;
- (b) measuring a blood pressure of the patient; and
- (c) calculating a quantity ~~representing~~ that is a mathematical function of the peripheral vascular function in the limb, using the peripheral pulse volume PV measured in step (a) and the blood pressure measured in step (b).

2. (Original) The method of claim 1, wherein step (b) comprises:

- (i) measuring a diastolic blood pressure DBP of the patient;
- (ii) measuring a systolic blood pressure SBP of the patient; and
- (iii) calculating a pulse pressure PP of the patient as $PP = SBP - DBP$.

3. (Original) The method of claim 2, further comprising measuring a heart rate HR of the patient, and wherein step (c) comprises calculating the quantity also using the heart rate HR .

4. (Original) The method of claim 3, wherein step (c) comprises calculating a pulsatile flow PF as $PF = PV \times HR$.

5. (Original) The method of claim 4, wherein step (c) further comprises calculating a vascular resistance R as PP/PF .

6. (Original) The method of claim 4, wherein:
- step (b) further comprises calculating a mean blood pressure MBP ; and
- step (c) further comprises calculating a total flow TF as $TF = PF \times MBP/PP$.
7. (Original) The method of claim 6, wherein step (c) further comprises calculating a vascular resistance R as $R = MBP/TF$.
8. (Original) The method of claim 2, wherein step (c) comprises calculating a vascular compliance C as $C = PV/PP$.
9. (Original) The method of claim 1, further comprising controlling a display to display the quantity calculated in step (c).
10. (Original) The method of claim 1, further comprising controlling a storage device to store the quantity calculated in step (c) for later review.
11. (Original) The method of claim 1, further comprising transmitting the quantity calculated in step (c) over a communication link to a remote location for review.
12. (Original) The method of claim 1, wherein steps (a), (b) and (c) are performed using an integrated device.

13. (Original) The method of claim 1, wherein:
step (a) is performed using a pulse volume meter;
step (b) is performed using a blood pressure monitor which is provided separately from the pulse volume meter; and
step (c) is performed using a computing device which is provided separately from the pulse volume meter and the blood pressure monitor.

14. (Original) The method of claim 13, wherein the peripheral pulse volume and the blood pressure are input automatically into the computing device.

15. (Original) The method of claim 13, wherein the peripheral pulse volume and the blood pressure are input manually into the computing device.

16. (Currently Amended) A system for quantitatively assessing a peripheral vascular function in a limb of a patient, the system comprising:

a pulse volume meter for measuring a peripheral pulse volume per length PV in the limb of the patient;

a blood pressure monitor for measuring a blood pressure of the patient; and

a computing device for receiving the peripheral pulse volume and the blood pressure and for calculating a quantity ~~representing~~ that is a mathematical function of the peripheral vascular function in the limb, using the peripheral pulse volume and the blood pressure.

17. (Original) The system of claim 16, wherein the blood pressure monitor measures a diastolic blood pressure DBP of the patient and a systolic blood pressure SBP of the patient and calculates a pulse pressure PP of the patient as $PP = SBP - DBP$.

18. (Original) The system of claim 17, wherein the computing device also receives a heart rate HR of the patient and calculates the quantity also using the heart rate HR .

19. (Original) The system of claim 18, wherein the computing device also calculates a pulsatile flow PF as $PF = PV \times HR$.

20. The system of claim 19, wherein the computing device also calculates a vascular resistance R as PP/PF .

21. (Original) The system of claim 19, wherein:

the blood pressure monitor calculates a mean blood pressure MBP ; and

the computing device also calculates a total flow TF as $TF = PF \times MBP/PP$.

22. (Original) The system of claim 21, wherein the computing device calculates a vascular resistance R as $R = MBP/TF$.

23. (Original) The system of claim 17, wherein the computing device calculates a vascular compliance C as $C = PV/PP$.

24. (Original) The system of claim 16, wherein the computing device comprises a display for displaying the quantity calculated by the computing device.

25. (Original) The system of claim 16, wherein the computing device comprises a storage device for storing the quantity calculated by the computing device.

26. (Original) The system of claim 16, wherein the computing device comprises a communication link for transmitting the quantity calculated by the computing device over a communication link to a remote location for review.

27. (Original) The system of claim 16, wherein the pulse volume meter, the blood pressure monitor and the computing device are comprised in an integrated device.

28. (Original) The system of claim 16, wherein the pulse volume meter, the blood pressure monitor and the computing device are separate devices.

29. (Original) The system of claim 28, wherein the pulse volume meter, the blood pressure monitor and the computing device are in communication with one another such that the peripheral pulse volume and the blood pressure are input automatically into the computing device.

30. (Original) The system of claim 28, wherein the peripheral pulse volume and the blood pressure are input manually into the computing device.

31. (New) The method of claim 1, wherein the mathematical function is selected from the group consisting of pulsatile limb blood flow, total limb blood flow, limb vascular compliance, and limb vascular resistance.

32. (New) The system of claim 16, wherein the mathematical function is selected from the group consisting of pulsatile limb blood flow, total limb blood flow, limb vascular compliance, and limb vascular resistance.

33. (New) A method for quantitatively assessing a peripheral vascular function in a limb of a patient, the method comprising:

- (a) measuring a peripheral pulse volume per length PV in the limb of the patient;
- (b) measuring a blood pressure of the patient; and
- (c) calculating a quantity representing the peripheral vascular function in the limb, using the peripheral pulse volume PV measured in step (a) and the blood pressure measured in step (b), wherein step (c) comprises calculating a pulsatile flow PF as $PF = PV \times HR$.

34. (New) A system for quantitatively assessing a peripheral vascular function in a limb of a patient, the system comprising:

a pulse volume meter for measuring a peripheral pulse volume per length PV in the limb of the patient;

a blood pressure monitor for measuring a blood pressure of the patient; and

a computing device for receiving the peripheral pulse volume and the blood pressure and for calculating a quantity representing the peripheral vascular function in the limb, using the peripheral pulse volume and the blood pressure, wherein the computing device also calculates a pulsatile flow PF as $PF = PV \times HR$.



INTERVIEW SUMMARY BY APPLICANTS

At the outset, the Applicants acknowledge with appreciation the courtesy extended by the Examiner and her supervisor during the telephone interview conducted October 4, 2006. During the interview, the Applicants' representative presented arguments regarding the rejection under 35 U.S.C. § 112, second paragraph, pointing to the definition of pulsatile flow in the specification on page 6. In response, the Examiner and her supervisor indicated that the definition of pulsatile flow would have to be distinguished over the definition of cardiac output in the prior art, by way of argument, amendment, or both. No agreement was reached.

The Applicants' representative also presented proposed claim amendments to overcome the rejection under 35 U.S.C. § 102(b). Agreement was reached that the applied reference does not teach or suggest calculating a quantity that is a mathematical function of the peripheral vascular function in the limb and that an amendment to the claims to recite that limitation would overcome the rejection. The Applicants' representative also proposed adding the limitation that the mathematical function is selected from the group consisting of pulsatile limb blood flow, total limb blood flow, limb vascular compliance, and limb vascular resistance. In light of the agreement reached on the first proposed amendment, it was agreed that it would be appropriate to present the second proposed amendment in the form of additional dependent claims.

Finally, it was agreed that once the rejection under 35 U.S.C. § 102(b) was overcome, the rejection under 35 U.S.C. § 103(a) would be moot.